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ABSTRACT

This study was conducted to: (1) determine the validity of five Educational Testing Service (ETS) tests as measures of the knowledge and academic skills required for specific endorsements of professional public school personnel in Arkansas; and (2) formulate recommendations on minimum qualifying scores for tests that are valid to use for endorsements in Arkansas. Focus was on the potential use of the ETS tests for endorsing teacher certification rather than for selecting personnel for employment. The functions performed in the review of the ETS tests were conceptualized as panel activities. Separate panels reviewed content, job relevance, and knowledge estimation functions for each of the tests. Data were collected at a 1-day meeting of all panels at Hot Springs (Arkansas) on April 28, 1988. A total of 84 panel members reviewed the five ETS tests--Teaching Hearing Impaired, Teaching Visually Impaired, Special Education, Health Education, and Marketing and Distributive Education. In addition, a 14-member standards committee was responsible for deciding test validity for use in initial certification and endorsement and developing recommendations on minimum qualifying scores. It is recommended that: (1) January 1, 1989, be established as the effective date for implementation of the minimum qualifying score requirements in specialized areas in which the ETS tests would be used; and (2) results of use of the five tests be monitored during the first 2 years of program implementation. Nine data tables are provided. (TJH)

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DEVELOPING PERFORMANCE STANDARDS FOR SELECTED ETS SPECIALTY AREA TESTS USED AS A BASIS FOR INITIAL TEACHER CERTIFICATION ENDORSEMENT IN ARKANSAS

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Introduction

Statutory requirements for teacher certification by the State of Arkansas have been established through a legislative act in 1979 and subsequent amendments in 1981, 1983, and 1985. The statutes specify that the NTE or similar examinations will be used to qualify for initial certification and to add teaching area endorsements. The State Board of Education has the responsibility for implementing the requirements that became effective on February 1, 1983.

At the time of this study, NTE Specialty Area tests were being used for 25 certification endorsement areas in Arkansas. Minimum scaled scores had been established to receive a standard certificate for each of the 25 areas. In addition, a range of scaled scores had been defined to meet eligibility requirements for a two-year provisional certificate in each area. The Professional Knowledge Test of the NTE Core Battery was required for all applicants seeking initial certification in Arkansas.

Additional tests available from Educational Testing Service (ETS), Princeton, NJ, were identified by Arkansas Department of Education (ADE) personnel for potential use with five certification endorsement areas. The ADE contracted with Memphis State University to conduct a study of these tests during the Spring of 1988 to determine the validity of the tests and minimum qualifying scores for certification area applicants who would take the tests. The statewide study involved personnel from public education agencies and higher education institutions with professional preparation programs in these specialized areas.

Objectives of the Study

The study conducted for the Arkansas Department of Education by Memphis State University had two objectives: (1) to determine the validity of five ETS

tests as measures of the knowledge and academic skills required for specific endorsements of professional public school personnel in Arkansas and (2) to formulate recommendations on minimum qualifying scores for the tests that are valid to use for endorsements in Arkansas. The scope of the study was delimited to the potential use of the ETS tests for certification endorsement rather than to select personnel for employment.

Description of Candidate Tests

The five tests included in this study are secured instruments that are available from Educational Testing Service, a private, non-profit testing organization. The Special Education Test is an NTE Specialty Area test that became available for administration in 1985. A consortium of states with state-sponsored testing programs for teacher certification has been formed to work with ETS in developing tests for particular specializations that are not included among the NTE Specialty Area tests. Recently developed state-sponsored testing program (SSTP) tests available for the study were tests for Teaching Hearing Impaired Students, Teaching Visually Impaired Students, Health Education, and Marketing and Distributive Education.

Methodology

This section of the paper describes the panel and Standards Committee tasks, the selection of participants, the data collection procedures, and the selection and meeting of the Standards Committee.

Panel Functions

The functions performed in the review of the ETS tests were conceptualized as panel activities. Separate panels were utilized to perform content review, job relevance, and knowledge estimation functions for each test. The activities of the panels are described below.

Content Review Panels. The members of the Content Review Panel for each test independently performed two tasks in reviewing test content. These tasks involved a review of the test at two levels: question and topic. Standardized oral instructions were given at the meeting to assure use of the appropriate reference group in performing the tasks.

First, the panelist examined each test question on the assigned test to judge whether or not 90% of the students completing the related preparation program would have the opportunity to acquire the knowledge or academic skills needed to answer the question correctly. Instructions were given to base judgments on experience with students and knowledge of the program at the panelist's institution. Using test questions with the correct answers noted, the panelist in effect classified each question dichotomously (appropriate or inappropriate) using the 90% criterion.

Second, the panelist made judgments about the congruence between the proportion of the test devoted to each topic and the emphasis on the topic in the curriculum required for professional preparation. A description of the test content was given to the panel member that listed the major topics and the approximate percentages of the test questions related to each topic. The comparison of the topical emphases was made by indicating whether the emphasis given to each topic in the preparation program was the same as, greater than, or less than the emphasis given to the topic on the test. The terms "greater than" and "less than" were defined as perceived differences of 5% or more between the preparation program and the test.

The order of task performance was deliberately sequenced as described above. Since the questions were grouped into content categories, the panelist should be better prepared to compare test content and curriculum content after reviewing the test questions. Therefore, the tasks were performed in sequence

at the question and topic levels.

Job Relevance Panels. The members of the Job Relevance Panel for each test reviewed each question on the appropriate test to make judgments about the degree to which the knowledge or academic skills related to competent performance as a beginning professional public educator in Arkansas. Standardized instructions were given at the meeting to assure use of the appropriate reference group in making judgments. The relevance of each test question was judged as Crucial, Important, Questionable, or Not Relevant. Each panel member made independent judgments on the relevancy of the test questions on the assigned test.

Knowledge Estimation Panels. The members of the Knowledge Estimation Panel for each test performed a single task in making judgments about performance levels of minimally qualified personnel who are beginning professional public educators in Arkansas. The steps involved in preparing for the task and making the judgments are described below.

The panelist was required to conceptualize a hypothetical reference group of only those college graduates who are likely to pursue professional education careers in the elementary or secondary grades, excluding persons who are likely to pursue advanced study or non-teaching careers. Next, the panel member was instructed to consider only those graduates who are minimally qualified as beginning professional educators in Arkansas (i.e., those who have the minimum knowledge and academic skills for competent performance). Since teachers are thoroughly experienced in using this concept, they are likely to perform conscientiously and well in defining minimal competence because of the consequences of making incorrect judgments with regard to individuals.

The panel member was directed to make estimates about knowledge as opposed

to correct responses that would include guessing correctly. In advance of the panel meeting, the panelist was encouraged to obtain information locally about the relevant curriculum and professional preparation program. An exercise was used at the meeting to assist the panelist in forming the appropriate reference group and making judgments about knowledge levels.

Judgments were made on each test question by the panel member using a 7-point numerical response scale (2%, 10%, 25%, 40%, 60%, 80%, and 98%). The score points were not described verbally for two reasons: (1) to avoid influencing the judgments made and (2) to utilize the familiar and widely used numerical basis for judging test performance. More score points were specified on the lower portion of the response scale to facilitate more accurate judgments of knowledge levels for the more difficult questions.

Standards Committee Functions

The Standards Committee was responsible for performing two functions. The first was to decide whether or not each of the ETS tests was valid for use in the initial certification and endorsement of professional public education personnel in Arkansas. The second was to develop recommendations on minimum qualifying scores for the valid ETS tests.

Validity. In order to make decisions on validity, the Standards Committee reviewed data on the appropriateness of each ETS test for use in Arkansas. Data from the Content Review Panels had been previously analyzed and prepared in tabular form for the committee. These data included the responses on the appropriateness of the test questions and the congruence between the proportion of each test devoted to each topic and the emphasis on the topic in the professional preparation curriculum. Data from the Job Relevance Panels were also provided to the committee. The analyses of these data indicated the

degree to which the knowledge or academic skills represented by the test questions were related to competent performance as a beginning professional public educator in Arkansas.

The Standards Committee reviewed the data from the Content Review Panel and the Job Relevance Panel for each test. The data from only these two panels were presented because they provided the information required to determine the validity of the test for use in Arkansas. Basing their actions on a review of these data, the committee made decisions on the validity of each test.

Minimum Qualifying Scores. The first step in developing recommendations on minimum qualifying scores was the presentation to the Standards Committee of the data that were derived from the Knowledge Estimation Panel for each test. These data consisted of estimated scores of persons who, based on the judgments of the panelists, are minimally qualified for initial certification and endorsement as beginning professional specialists in Arkansas.

The committee received summative data derived from the results of administering the tests to examinees. The database for the Special Education Test was sufficiently large to provide normative information that included the standard error of measurement, a quantitative measure of test score precision. The data presented for examinee performance on the four SSTP tests were limited to means, standard deviations, and ranges of raw scores and scaled scores because of the relatively small numbers of examinees.

Formation of Panels

The nomination and selection of panelists utilized procedures that gave attention to expert qualifications, representation of gender groups, inclusion of significant racial/ethnic group members, and diversity of higher education

institutions and local school districts in Arkansas. The nomination of panel members was initiated by a letter of request from the ADE. The letter, instructions for nominating panel members, and nomination forms were sent to the teacher education units with preparation programs for the specialized areas and to a broadly representative sample of local school districts in Arkansas.

The instructions for nominating panel members provided background information on the study. The criteria for panel member eligibility stated in the instructions were the following:

(1) currently serving in the public schools in the area for which nominated or currently serving as a faculty member in a college or university offering one or more approved teacher education programs

(2) a minimum of two years of experience as defined above

(3) Arkansas certification for public school nominees

Only one approved program exists in Arkansas for professional preparation in each of two certification areas related to the candidate tests: Teaching the Hearing Impaired and Teaching the Visually Impaired. The limited number of higher education faculty members available for these areas necessitated the use of some recent graduates of these programs as content reviewers. These personnel had completed their programs within the last two years.

The eligibility of nominees to serve on the panels for which they were nominated was ascertained based on congruence between the stated criteria and the nomination form data. The selection of panelists from the pool of qualified nominees for each panel was made to ensure that the factors identified above were addressed to the maximum extent possible.

Data Collection

The data collection was conducted at a one-day meeting of all panels at Hot Springs, Arkansas, on April 28, 1988. Personnel from the ADE made the arrangements for the facility and handled all matters related to travel by the panelists. ETS personnel who work with ETS testing programs and have participated previously in many similar studies conducted the data collection session. Memphis State University staff attended and assisted in the data collection meeting.

Sessions were held in the morning and the afternoon to collect the data. The morning was devoted to meetings of the Content Review Panels and the Job Relevance Panels. A general orientation was conducted on the background of the study and the tasks to be performed by each panel. In the afternoon, the Knowledge Estimation Panels began by participating in the knowledge estimation exercise. After the introductory activities were completed in the morning and afternoon, the panelists completed the assigned tasks for the content review, job relevance, and knowledge estimation functions.

Selection and Meeting of Standards Committee

A group of 14 educational and lay representatives was selected by the ADE to serve as the Standards Committee for the study. In determining the composition of the committee, attention was given to several factors: geographic distribution; representation of males and females; representation of racial/ethnic groups; and representation of higher education institutions, local school districts, and the general public.

The Standards Committee met for an afternoon and a day in Little Rock on June 9-10, 1988. In the afternoon of the first day, the committee reviewed data regarding appropriateness (content review and job relevance) of the ETS tests. On the following day, the committee discussed the data and made

decisions on the validity of the tests for use in Arkansas. On the second day, the committee also developed recommendations on minimum qualifying scores for the valid ETS tests based on a review of the knowledge estimation data and data available on examinee performance. Personnel involved in conducting the study served as staff and resource persons for the committee.

Presentation of Data and Results

In this section, the data are summarized for the personnel involved and the responses of the panels. The results of the deliberations by the Standards Committee are also presented.

Data on Personnel

Background data on the panel members are reported in Table 1 for the 84 participants who reviewed the five ETS tests. With respect to gender, slightly less than two thirds of the panelists were females. While a small majority of the content reviewers were females, almost three fourths of the job relevance reviewers were females. When classified by ethnicity, the ratio of blacks to whites among the panelists was 1 to 6. The ratio of blacks to whites was approximately 1 to 3.5 for the job relevance panelists and 1 to 16.5 for the content review panelists.

Demographic data on the 14 Standards Committee members are also presented in Table 1. With regard to gender, slightly over two thirds of the committee members were males and almost one third were females. When classified by ethnicity, one fifth of the committee members were blacks while four fifths were whites.

Table 2 contains data on the number of participants for panel functions by test. The total number of participants for each test ranged from 15 for two tests to 19 for two tests as indicated by the sizes of the Knowledge Estimation

Table 1

Frequency and Percentage Distributions of Panelists and Standards Committee on Gender and Ethnicity

Function	Gender				
	Male		Female		Total
	f	%	f	%	
Panel					
Content Review	17	45	21	55	38
Job Relevance	13	28	33	72	46
Knowledge Estimation*	30	36	54	64	84
Standards	10	71	4	29	14

	Ethnicity						
	Black		White		No. Response		Total
	f	%	f	%	f	%	
Panel							
Content Review	2	5	33	87	3	8	38
Job Relevance	9	20	33	72	4	9	46
Knowledge Estimation*	11	13	66	79	7	8	84
Standards	3	21	11	79	0	0	14

*Composite of Content Review and Job Relevance Panels

Table 2

Number of Participants for Panel Functions by Test

Test (Number and Name)	Panel Function		
	Content Review N	Job Relevance N	Knowledge Estimation N
27 Teaching Hearing Impaired	7	8	15
28 Teaching Visually Impaired	7	9	16
35 Special Education	8	11	19
55 Health Education	10	9	19
56 Marketing and Distributive Education	6	9	15

Panels. The numbers of content review panelists varied from 6 for the Marketing and Distributive Education Test to 10 for the Health Education Test. The job relevance participants for each test ranged from 8 for the Teaching the Hearing Impaired Test to 11 for the Special Education Test.

Content Review Panel Results

The Content Review Panel for each ETS test conducted reviews of the questions and topics of the test. The results of the analyses at each level are reported below.

Content Appropriateness of Multiple-Choice Test Questions. The Content Review Panel members examined each question on the assigned test to judge whether or not 90% of the students completing the appropriate college program would have the opportunity to acquire the knowledge or academic skills to answer the question correctly. After calculating the percentage of "Yes" responses for each question, the percentage of items receiving more than specified percentages of "Yes" responses was computed to obtain a measure of content appropriateness. The results are reported in Table 3.

The results for the five tests indicated that over 50% of the panelists viewed 90% (Teaching the Hearing Impaired and Health Education) to 98% (Marketing and Distributive Education) of the questions as content appropriate. Based on the criterion of more than 70% of the panelists, the percentages of test questions judged content appropriate varied from 72% (Health Education) to 94% (Marketing and Distributive Education). A minimum of 60% of the questions on each test were perceived as content appropriate by over 80% of the panel members.

Table 3

Summary of Data Analyses on Content Review Ratings of Test Items by Test*

Test (Number and Name)	No. of Items	Percentage of College Personnel Who Rated Item Content as Appropriate for Curriculum: Over 50%	Over 60%	Over 70%	Over 80%	Over 90%	N
27 Teaching Hearing Impaired	120	90	87	87	71	37	7
28 Teaching Visually Impaired	120	93	85	85	73	48	7
35 Special Education	150	95	95	92	81	55	8
55 Health Education	120	90	83	72	60	31	10
56 Marketing and Distributive Education	120	98	98	94	94	78	6

*Percentages may not equal 100% for a test due to omissions.

Relative Emphases in Tests and Curricula. The Content Review Panel members assigned to each test compared the major content topics with the topics in the related college curriculum. Allowing a difference of 5% or less, the relative emphases were rated the "same as," "more than," or "less than." The responses were pooled by topic and weighted by percentage of test questions on the topic. A Difference in Relative Emphasis (DRE) Index was computed for each test. The results are presented in Table 4. The index range can be from a minimum of 0 (very close similarity) to 100 (very little similarity).

The DRE Index for the five ETS tests under study ranged from 4.3 (Teaching the Visually Impaired Test) to 31.4 (Marketing and Distributive Education Test). The index values for the other three tests were 12.0 (Health Education Test), 26.2 (Special Education Test), and 29.0 (Teaching the Hearing Impaired Test). These results indicated that the tests are more like than unlike the

Table 4

Summary of Data Analyses on Comparisons of Curriculum Content and Test Topic Emphasis by Test

Test (Number and Name)	Difference in Relative Emphasis Index*	N
27 Teaching Hearing Impaired	29.0	7
28 Teaching Visually Impaired	4.3	7
35 Special Education	26.2	8
55 Health Education	12.0	10
56 Marketing and Distributive Education	31.4	6

*Index range: 0 to 100
Low score indicates close similarity; high score indicates little similarity.

curriculum emphases for the respective professional preparation programs in Arkansas.

Job Relevance Panel Results

Each ETS test was reviewed by a Job Relevance Panel. The panel member reviewed each question and judged its relevance to the responsibilities of beginning specialized professional public educators in Arkansas. Responses of "Crucial" and "Important" were used to identify questions representing relevant knowledge and academic skills. Responses of "Questionable" and "Not Relevant" were defined as indicating irrelevance. The results of the job relevance ratings for the tests are presented in Table 5.

The ratings for the tests revealed that more than 50% of the panel members considered from 89% (Teaching the Visually Impaired Test) to 98% (Marketing and Distributive Education Test) of the questions to be job relevant. Based on the criterion of over 70% of the panelists, the percentages of questions viewed as

Table 5

Summary of Data Analyses on Job Relevance Ratings of Test Items by Test*

Test (Number and Name)	No. of Items	Percentage of Public School Personnel Who Rated Item Content as Relevant to Job: Over 50%	Over 60%	Over 70%	Over 80%	Over 90%	N
27 Teaching Hearing Impaired	120	93	93	87	76	45	8
28 Teaching Visually Impaired	120	89	86	77	68	50	9
35 Special Education	150	91	86	77	64	51	11
55 Health Education	120	96	86	76	55	37	9
56 Marketing and Distributive Education	120	98	93	88	80	50	9

*Percentages may not equal 100% for a test due to omissions.

job relevant ranged from 76% (Health Education Test) to 88% (Marketing and Distributive Education Test). Over 80% of the panelists perceived that 55% (Health Education Test) to 80% (Marketing and Distributive Education Test) of the questions on each test were job relevant.

Knowledge Estimation Panel Results

The members of the Knowledge Estimation Panel for each test made judgments independently on the percentage of minimally qualified applicants for certification and endorsement in Arkansas who would know the answer to each question. Based on the response choices (2%, 10%, 25%, 40%, 60%, 80%, and 98%) selected, the mean percentage for each question was computed and adjusted upward to account for guessing the correct answer if unknown to the examinee. The sum of the adjusted percentages represented the estimated raw score mean for the test. The raw score mean was converted to a scaled score mean using

conversion parameters provided by ETS.

Table 6 contains the results of the knowledge estimation function and derived information for the Special Education Test. Based on the 148 items of the 150-item test that are scored, the raw score mean adjusted for guessing was almost 77. The scaled score mean equivalent for the adjusted raw score mean was 556 when the conversion parameters were applied. The standard error of measurement for raw scores on the test is 6 as determined from data for all examinees who have taken the test. Information derived for potential use in setting minimal qualifying scores were the raw scores and scaled scores for the adjusted raw score mean minus 1, 2, 3, and 4 standard errors of measurement.

Table 6

Summary of Analyses on Estimated Scores for Minimally Qualified Certification Candidates--Special Education Test

Items Total/Scored	150/148	
N (Panelists)	19	
Mean Raw Score (RS) - Adjusted Scaled Score (SS)	76.730 556.181	
Standard Error of Measurement (SEM) for Raw Scores*	6	
Mean - 1 SEM	70.730 (RS)	532.672 (SS)
Mean - 2 SEM	64.730 (RS)	509.140 (SS)
Mean - 3 SEM	58.730 (RS)	485.608 (SS)
Mean - 4 SEM	52.730 (RS)	462.076 (SS)

*SEM based on examinee data from ETS

The results of the knowledge estimation function are summarized in Table 7 for the four SSTP tests. All items are scored on the tests with the exception

Table 7

Summary of Analyses on Estimated Scores for Minimally Qualified Certification Candidates on SSTP Tests

	Hearing Impaired	Visually Impaired	Health Education	Marketing and Distributive Education
Items				
Total/Scored	120/120	120/120	120/119	120/120
N (Panelists)	15	16	19	15
Mean				
Raw Score-Adjusted	69.473	65.730	70.325	71.124
Scaled Score	557.014	527.899	568.235	569.858

of one item on the Health Education Test. The adjusted raw score means for minimally qualified certification candidates ranged from almost 66 for the Teaching the Visually Impaired Test to approximately 71 for the Marketing and Distributive Education Test. The scaled score equivalents for the adjusted raw score means varied from about 528 to 570 for these respective tests.

Table 8 contains a summary of the data available from ETS for examinee performance on the four SSTP tests. The number of examinees ranges from a low of 5 to a high of 66. The mean, standard deviation, and range are reported for the raw scores and scaled scores on each test. The usefulness of these data is extremely limited because of (1) the small numbers of examinees who cannot be assumed to represent the diversity of the potential examinee population for each test and (2) the instability of the statistical measures used in summarizing examinee performance.

Table 8

Summary of Data for Examinee Performance on SSTP Tests

	Test			
	Hearing Impaired	Visually Impaired	Health Education	Marketing and Distributive Education
Items				
Total/Scored	120/120	120/120	120/119	120/120
N	14	5	66	38
Raw Score				
Mean	87	91	84	86
S.D.	7	8	15	15
Range	77-98	80-101	48-104	43-105
Scaled Score				
Mean	692	726	673	683
S.D.	52	62	115	114
Range	620-780	690-800	390-830	350-830

Standards Committee Actions

The Standards Committee elected one of its members to serve as chair during the deliberations in order to take the formal actions required. The decisions on test validity and recommendations on minimum qualifying scores and other matters are reported below.

Test Validity Decisions. The Standards Committee reviewed the analyses of the data collected in the performance of the content review and job relevance functions by the panels for the five ETS tests. These data focused on two questions that must be addressed in making decisions on test validity:

1. Is there sufficient congruence between the content of each of the ETS tests and the content of the curriculum of the appropriate professional preparation programs in Arkansas to justify use of the tests in the initial certification and endorsement of professional public education personnel in Arkansas?
2. Is there sufficient congruence between the content of each of the ETS tests and the knowledge and academic skills required for success as a beginning professional public educator in Arkansas to justify use of the tests in the initial certification and endorsement of professional public educators in Arkansas?

The study staff presented and explained to the committee the results of the content review for the test questions and the test content topics. Then, the results of the job relevance assessment of the test questions were presented to the committee. Finally, the committee received a compilation of the results on content review and job relevance for each test.

Based on a thorough review and discussion of the data for the tests, the committee took formal action on each ETS test. The committee concluded that each of the five ETS tests is valid to use in Arkansas for initial certification and endorsement of professional public educators in the respective specialized areas. The rationale for these decisions was the relatively high degree of congruence between test content and professional preparation programs and the extent to which the test items were job related.

Minimum Qualifying Scores. After making decisions on test validity, the Standards Committee received from the study staff the results of the knowledge estimation function performed by the panels assigned to each of the tests. These data were needed to address the following question: for each valid ETS test, what is the minimum qualifying score that should be required for initial

certification and endorsement of professional public education personnel in Arkansas for the specialized area?

The data presented and described by the study staff included the adjusted raw score means and the scaled score means for the ETS tests based on the responses of the knowledge estimation panel members. These data were described as the estimated scores of minimally qualified applicants for intial certification and endorsement of specialized professional public educators in Arkansas. Other information presented to the committee during the deliberations was of a general nature pertaining to examinee performance on specialized teacher education tests administered by ETS.

The initial factor considered in formulating recommendations on minimum qualifying scores for the five ETS tests was the scaled score equivalents of the adjusted raw score means for minimally qualified certification and endorsement applicants in Arkansas based on the knowledge estimation panel responses. For the Special Education Test, the normative data on examinee performance represented a sufficiently large database for consideration in providing guidance to the committee. The relatively small numbers of examinees who had taken the other four tests suggested that those performance data had limited utility to the committee. However, the standard errors of measurement available for other ETS normative specialized teacher education tests (generally varing from about 15 to 28 in scaled score units) were regarded by the committee as useful in providing guidance on anticipated examinee performance.

After thorough review and discussion of the data collected from panelists and the other information available, the committee made decisions on the recommended minimum qualifying scaled score for each of the tests included in the study and determined to be valid for use in Arkansas. The committee also

made recommendations on the range of scaled scores for provisional certification based on each test when an applicant's score is below the level required for standard certification. Table 9 presents the recommendations of the committee on minimum qualifying scores for the five tests.

Table 9

Recommended Minimum Qualifying Scores on ETS Tests Studied for Standard and Provisional Certification in Arkansas

Certification Test	Required Score for Standard Certification	Required Score for Provisional Certification
Teaching Hearing Impaired	500	470 - 499
Teaching Visually Impaired	480	450 - 479
Special Education	510	480 - 509
Health Education	520	490 - 519
Marketing and Distributive Education	520	490 - 519

Other Recommendations. In the course of committee deliberations, two additional recommendations were formally adopted. These recommendations to the State Board of Education were the following:

1. Establish January 1, 1989, as the effective date for implementation of the minimum qualifying score requirements in those specialized areas with which the five ETS tests would be used.
2. Monitor the results of using the five tests during the first two years of implementation and review the appropriateness of the score requirements established for standard and provisional certification based on the Teaching the Hearing Impaired Test, Teaching the Visually Impaired Test, Health Education Test, and Marketing and Distributive Education Test.